

NATURAL HISTORY MISCELLANEA

Published by
The Chicago Academy of Sciences

Lincoln Park - 2001 N. Clark St., Chicago 14, Illinois

No. 128

February 10, 1954

Distribution of Some Illinois Mammals

Donald F. Hoffmeister*

Some specimens of mammals recently collected, and the re-examination of other specimens and records, from Illinois shed new light on the distribution of certain species in that state.

Condylura cristata (Linnaeus) . Star-nosed Mole.

On the basis of present evidence, this species should not be listed as a member of the fauna of Illinois. There are approximately five reports of star-nosed moles from Illinois, but all are based on questionable sight records or reports. No specimens from the state are known to be extant, although Cory (1912, p. 444) indicates that he examined one from Warsaw, Hancock County. The specimen, apparently lost, was sent to Cory by C. K. Worthen with the word "Warsaw," nothing else, *pencilled* on the label. Warsaw, on the Mississippi River, seems a most unlikely place for the occurrence of this species. The star-nosed mole is known from no nearer to Illinois than central Wisconsin, southern Michigan, and central Indiana.

Sorex cinereus lesueurii (Duvernoy) . Masked Shrew.

Koestner (1942) intimates that this species occurs from northern to southern Illinois, although he had specimens from northeastern Illinois only. The known marginal records of occurrence of *Sorex cinereus* in Illinois are in McLean and Kankakee counties on the south, McHenry County on the west. The record from McLean County (Normal) is open to question because the specimen, in the collection of the Illinois Natural History Survey, has the notation on the label "probably from Normal," seemingly in the handwriting of S. A. Forbes, and no other locality information. The specimen, in alcohol, is without skull, and I know of no way to check the identity, although Wetzel (1947, p. 231) regarded it as *Sorex cinereus*.

* Museum of Natural History, University of Illinois, Urbana.

A specimen in the Illinois Natural History Survey collection from McHenry County has been examined and seems referable to *Sorex cinereus*. This, I think, is the same specimen that Jackson (1928) listed under *Sorex longirostris longirostris* from Pistakee Lake, Henry County (which should have been McHenry Co.) . Shrews from central Illinois (2 mi. south of Charleston and Fox Ridge Park, Coles County) and southern Illinois are referable to *Sorex longirostris*. I am aware that Kennicott recorded *Sorex cinereus* from Jackson County, in southern Illinois, but no specimens are known to be extant for this record. If Kennicott did see a long-tailed shrew there, it well might have been *S. longirostris*.

I am aware also that across the Wabash River from southeastern Illinois, at New Harmony, Indiana, *Sorex cinereus lesueurii* has been recorded. Examination of the skull of the New Harmony specimen (loaned by the U. S. Biological Survey, no. 51433) indicates that it is *Sorex cinereus* and not *S. longirostris*. Nevertheless, no specimens of long-tailed shrews from southern Illinois so far examined are referable to *S. cinereus*.

In some specimens of *Sorex cinereus* from Illinois, the third unicuspid is smaller than the fourth and in this regard supposedly show a resemblance to *longirostris*. In *Sorex longirostris* from central Illinois, the difference in size between the third and fourth unicuspids is much more than it is in *Sorex cinereus*. Efforts are being made to obtain a large series of *Sorex* (*longirostris* and *cinereus*) from Illinois to see if the variation in size of unicuspid is geographical, individual, or specific variation.

Specimens of *Sorex cinereus* from Illinois are tentatively referred to the subspecies *S. c. lesueurii*, following the resurrection of this name for specimens in Indiana and southern Michigan.

Myotis grisescens A. H. Howell. Gray Myotis.

The capture on August 6, 1950, of seven specimens of *Myotis grisescens* in a limestone cave called Cave Spring, 5^{1/2} miles east and 1/2 mile north of Elizabethtown, Hardin County, represents the second record of this species in Illinois. The specimens were taken by I. L. Firschein and have been identified by Colin C. Sanborn.

Gulo luscus (Linnaeus) . Wolverine.

The wolverine probably never occurred in the wild in Illinois, but parts of a lower jaw of this animal from an Illinois Indian mound have been called to my attention. Two pieces of a single mandible from **Mound 6**, Havana Mound Group, Mason County, are reportedly of Hopewellian age, probably 0 to 500 B.C. Previously these jaw fragments had been described and figured as parts of a dog's jaw (Baker, 1941, p. 11, 69 and pl. 7) but recently Dr. R. A. Stirton suggested that they are

jaws of *Gulo*. Comparison with Recent material loaned from the Museum of Zoology, University of Michigan, proved this to be correct, and the mound material seems nearly identical to a jaw of a Recent male wolverine from 75 mi. north of Fort Nelson, British Columbia. The pieces of this jaw had been cut and perforated, and probably were worn on a string. Indians in Illinois probably obtained these bone artifacts only by trading with Indians far to the north or by hunting far to the north of the present boundaries of Illinois

Microtus pennsylvanicus pennsylvanicus (Ord) . Meadow Vole.

Some reports (Necker and Hatfield, 1941; Wetzel, 1947; Hall and Cockrum, 1953) have indicated that the distribution of this species is nearly statewide. Such is far from the case, for the species occurs principally in northern Illinois, and the most authentic southern records for this state are: Good Hope, McDonough County (Wetzel, 1947, p. 232) ; Banner, Fulton County (Anderson, 1951, p. 182) ; Normal, McLean County (Wetzel, *loc. cit.*) . Some questionable reports of this species include these localities: Muncie, Vermilion County (actually the specimens are *Synaptomys*) ; Charleston, Coles County (record apparently based on an observation, not a collected specimen; only *Microtus ochrogaster* has been collected at this locality) ; Cass County (see remarks beyond) ; Arcola, Douglas County (see remarks beyond) . The specimen from Cass County (U. S. Biological Survey Collection, no. 147742) is an albinistic individual, white except for some dark hairs on top of the head, along the midline, and over the rump. The skull parts for this specimen consist of a fragment only of the anterior tip of the rostrum, with no molar teeth. Furthermore, there are no external measurements and the tail is imperfectly preserved. It is difficult to assign this specimen to either *Microtus pennsylvanicus* or *M. ochrogaster*, but it seems best to regard it tentatively as *M. ochrogaster ochrogaster*. Wetzel (1947, p. 233) lists a specimen from Arcola, Douglas County, in the Illinois Natural History Survey. The skin, without skull, has been found. The coloration of the underparts is much as in *M. pennsylvanicus*. The coloration of the tail and the arrangement of the plantar tubercles, as can best be discerned, is much as in *M. ochrogaster*. Hundreds of *Microtus* collected within a 30 mile radius of Arcola have proved to be *M. ochrogaster*.

Rattus rattus rattus (Linnaeus) . Black Rat.

The black rat had been suspected of occurring in Illinois, but it had never been recorded, nor a specimen collected and preserved from the state: In January, 1948, W. L. Burger found a rat dead on the street in front of a restaurant near the university campus, Urbana, Champaign County. The specimen proved to be a black rat with a total length of 437 mm., tail length 266 mm., hind foot 37 mm. The specimen is

blackish, with a few white hairs intermixed, the tail decidedly longer than the body, the temporal ridges of the skull bow slightly outward, and the length of a parietal measured along a temporal ridge is noticeably less than the distance between these ridges. All of these features serve to distinguish the black rat from the Norway rat (*Rattus norvegicus*). The specimen is preserved in the University of Illinois Museum of Natural History, no. 2651

Literature Cited

- Anderson, E. P.
1951 The mammals of Fulton County, Illinois. Bull. Chicago Acad. Sci., 9:153-188.
- Baker, F. C., et. al,
1941 Contributions to the archaeology of the Illinois River Valley Trans. Amer. Philos. Soc., 32:1-208.
- Cory, C. B.
1912 The mammals of Illinois and Wisconsin. Publ. Field Mus. Nat Hist., Zool. Ser., 11:505 p.
- Hall, E. R., and Cockrum, E. L.
1953 A synopsis of the North American microtine rodents. Univ. Kans Publ. Mus. Nat. Hist., 5:373-498.
- Jackson, H. H. T.
1928 A taxonomic review of the American long-tailed shrews. No. Amer. Fauna, 51, 238 p.
- Koestner, E. J.
1942 Distribution of *Sorex cinereus cinereus* in Illinois. Amer. Midl. Nat., 27:610-612.
- Wetzel, R. M.
1947 Additional records of Illinois mammals. Trans. III. Acad. Sci., 40:228-233.